

**SURFACE MOUNT**

**GLASS PASSIVATED SILICON RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes**

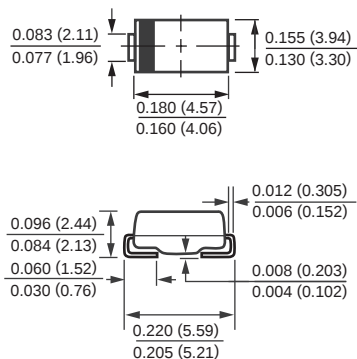
**FEATURES**

- \* Glass passivated device
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.098 gram

**MECHANICAL DATA**

- \* Epoxy : Device has UL flammability classification 94V-0

**DO-214AA**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| RATINGS                                                                                              | SYMBOL        | FM201        | FM202 | FM203 | FM204 | FM205 | FM206 | FM207 | UNITS |
|------------------------------------------------------------------------------------------------------|---------------|--------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                               | VRRM          | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | Volts |
| Maximum RMS Voltage                                                                                  | VRMS          | 35           | 70    | 140   | 280   | 420   | 560   | 700   | Volts |
| Maximum DC Blocking Voltage                                                                          | VDC           | 50           | 100   | 200   | 400   | 600   | 800   | 1000  | Volts |
| Maximum Average Forward Rectified Current<br>at TA = 75 °C                                           | IO            | 2.0          |       |       |       |       |       |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | IFSM          | 50           |       |       |       |       |       |       | Amps  |
| Typical Thermal Resistance                                                                           | (Note 2) RθJL | 20           |       |       |       |       |       |       | °C/W  |
|                                                                                                      | (Note 3) RθJA | 50           |       |       |       |       |       |       | °C/W  |
| Typical Junction Capacitance (Note 1)                                                                | CJ            | 30           |       |       |       |       |       |       | pF    |
| Operating and Storage Temperature Range                                                              | TJ, TSTG      | -55 to + 150 |       |       |       |       |       |       | °C    |

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS                                                 | SYMBOL | FM201 | FM202 | FM203 | FM204 | FM205 | FM206 | FM207 | UNITS |
|-----------------------------------------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Instantaneous Forward Voltage at 2.0A DC                | VF     | 1.1   |       |       |       |       |       |       | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | IR     | 5.0   |       |       |       |       |       |       | uAmps |
|                                                                 |        | 125   |       |       |       |       |       |       | uAmps |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
2. Thermal resistance junction to terminal, 5X5mm<sup>2</sup> copper pads to each terminal.  
3. Thermal resistance junction to ambient, 5X5mm<sup>2</sup> copper pads to each terminal.

# RATING AND CHARACTERISTIC CURVES ( FM201 THRU FM207 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

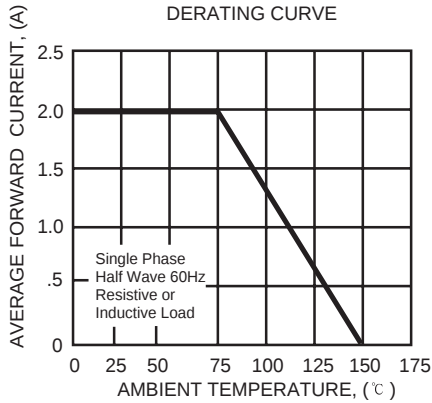


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

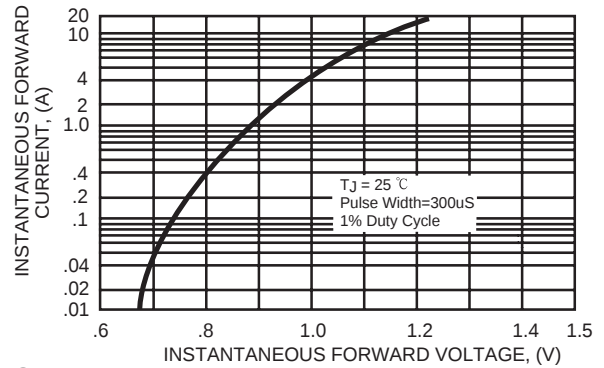


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

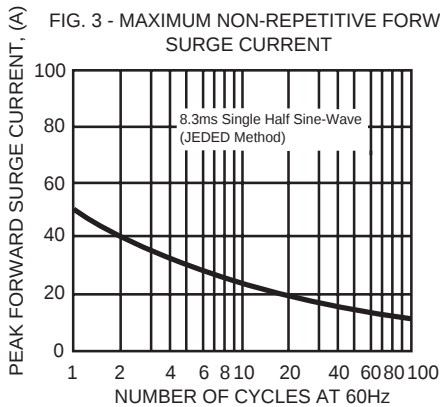


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

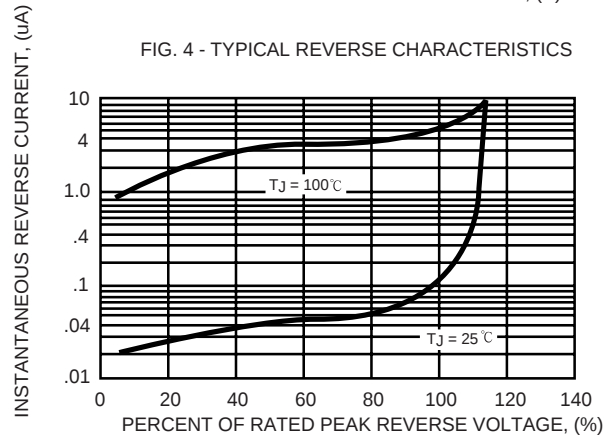
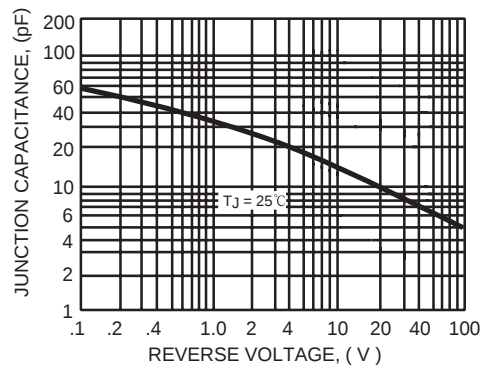
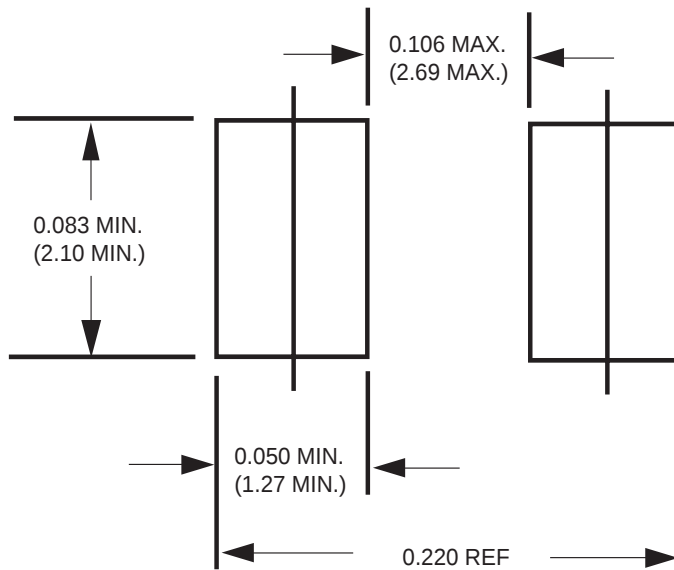


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



## Mounting Pad Layout



Dimensions in inches and (millimeters)